

but the main ingredient X'1 is disclosed depending on the confidential rank and the main ingredient X"1 obtained by information converting the main ingredient X1 or the main ingredient X'1 obtained by the information conversion means  
5 can be disclosed. The information conversion means is contained in the system of the ingredient manufacturer, and the main ingredient X1 information cannot be estimated from the main ingredient X1 information whose confidentiality to be maintained, or there is a database  
10 (division conversion database) for conversion into hardly estimated main ingredient X'1 and main ingredient X"1. An example of the conversion can be, in the preparation development using a verapamil hydrochloride (X1) which is a vasoconstrictor, dilazephydrochloride (X'1) is selected.  
15 The dilazep hydrochloride as well as verapamil hydrochloride is a vasoconstrictor, and is selected because it indicates a similar solubility level "sparingly soluble". From the similarity in solubility which is the main factor affecting the particle-generating process in the preparing  
20 process, the acetaminophen (X"1) which is an antifebrile is selected. It is impossible to estimate the development of the verapamil hydrochloride from the acetaminophen.

For example, the ingredient manufacturer offers the information about other composition ingredients including  
25 the main ingredient X'1 and composition ingredient X2 for the composition manufacturer including the communications server 311. The ingredient manufacturer discloses to the

## CLAIMS

1. A medicine prototype support system, comprising:
  - a first system which includes input means for inputting  
5 information, output means for outputting information, and  
communications means for transmitting information input  
from the input means and receiving information to be output  
by the output means, and is used by a product manufacturer;
  - a second system which includes input means for inputting  
10 an information, output means for outputting information,  
and communications means for transmitting information input  
from the input means and receiving information to be output  
by the output means, and is used by an ingredient  
manufacturer; and
  - 15 a third system which accumulates composition  
information relating to a composition of a product, can  
provide the output means of the second system with  
composition information at a retrieval request transmitted  
from the second system, and is used by a composition  
20 manufacturer, wherein  
main ingredient information relating to a main  
ingredient of a product composition is input from the input  
means of the first system, the main ingredient information  
is output to the output means of the second system through  
25 the communications means of the first system and the second  
system, ingredient information about a product composition  
ingredient and a retrieval request are input from the input

means of the second system, accumulated composition information about the ingredient information is obtained from the third system and output from the output means of the second system, estimated product property information and estimated product production cost information determined according to the output accumulated information are input from the input means of the second system and transferred through the communications means of the first system and the second system, and output from the output means of the first system.

2. The medicine prototype support system according to claim 1, wherein

after the estimated product property information and estimated product production cost information are output from the output means of the first system, a prototype manufacture request input from the first system is output from the output means of the second system through the communications means of the first system and the second system, the information about at least the properties of the prototype is input from the input means of the second system as the information about the manufacture of a product, and the input information about the manufacture is output from the output means of the first system through the communications means of the first system and the second system.

3. A medicine prototype supporting method, used among:  
a first system which is capable of inputting and  
outputting information, has communications capabilities,  
and is used by a product manufacturer,  
5 a second system which is capable of inputting and  
outputting information, has communications capabilities,  
and is used by an ingredient manufacturer, and  
a third system which accumulates composition  
information about the composition of a product, can provide  
10 the second system with composition information according  
to a retrieval request transmitted from the second system,  
and is used by a composition manufacturer, wherein  
main ingredient information relating to a main  
ingredient of a product composition is input from the first  
15 system, the main ingredient information is transferred and  
output to the second system through the communications  
capabilities of the first system and the second system,  
ingredient information about a product composition  
ingredient and a retrieval request are input from the second  
20 system, accumulated composition information about the  
ingredient information is obtained from the third system  
and output from the second system, estimated product  
property information and estimated product production cost  
information determined according to the output accumulated  
25 information are input from the second system and transferred  
through the communications capabilities of the first system  
and the second system, and output from the first system.

4. The medicine prototype supporting method according to claim 3, wherein

after the estimated product property information and  
5 estimated product production cost information are output  
from the first system, a prototype manufacture request input  
from the first system is output from the second system through  
the communications means of the first system and the second  
system, the information about at least the properties of  
10 the prototype is input from the second system as the  
information about the manufacture of a product, and the  
input information about the manufacture is output from the  
first system through the communications capabilities of  
the first system and the second system.

15

5. A medicine prototype support system, comprising:

a first system which has input means for inputting  
information, output means for outputting information, and  
communications means for transmitting the information input  
20 from the input means and receiving information to be output  
by the output means, and is used by a product manufacturer;  
and

a second system which accumulates composition  
information about the composition of a product, has input  
25 means for inputting information, output means for  
outputting information, and communications means for  
transmitting information input from the input means and

receiving information to be output by the output means,  
and is used by an ingredient manufacturer, wherein

main ingredient information relating to the main  
ingredient of a product composition is input from the input  
5 means of the first system, the main ingredient information  
is output to the output means of the second system through  
the communications means of the first system and the second  
system, ingredient information about composition  
ingredient and a retrieval request are input from the input  
10 means of the second system, accumulated composition  
information about the composition ingredient is obtained  
from the second system at the retrieval request and output  
from the output means of the second system, and estimated  
product property information and estimated product  
15 production cost information determined according to the  
output accumulated information are input from the input  
means of the second system, transferred through the  
communications means of the first system and the second  
system, and output from the output means of the first system.

20

6. A medicine prototype support system for an ingredient  
manufacturer developing medicines at a request of a product  
manufacturer, comprising

a product manufacturer system of the product  
25 manufacturer, an ingredient manufacturer system of the  
ingredient manufacturer, and a plurality of composition  
manufacturer systems of composition manufacturers which

the ingredient manufacturer requests to manufacture a composition, which are connected through communications means, wherein

the product manufacturer system comprises  
5 transmission means for transmitting at least main ingredient information about a medical product to the ingredient manufacturer system;

the ingredient manufacturer system comprises a database storing main ingredient information and  
10 composition ingredient information, composition ingredient determination means for determining composition ingredient information about a medical product to be developed according to the main ingredient information from the product manufacturer system based on the database, and  
15 transmission means for transmitting resultant composition ingredient information from the composition ingredient determination means to the plurality of composition manufacturer systems; and

the plurality of composition manufacturer systems  
20 comprises transmission means for transmitting composition manufacture information about the manufacture of a part of a manufacture process of the medical product to the ingredient manufacturer system.

25 7. The medicine prototype support system according to claim 6, wherein

the main ingredient information about the database of the ingredient manufacturer system is ranked depending on the security level, and when main ingredient information at a high security level is transmitted to the composition  
5 manufacturer system, the information is transmitted after being at least once converted by information conversion means.

8. The medicine prototype support system according to  
10 claim 6, further comprising

information conversion means for conversion from main ingredient information to another type of information which does not allow the main ingredient information to be estimated in a database of the ingredient manufacturer  
15 system.